Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Please amend the claims as indicated below.

Listing of Claims

CLAIMS

1. (currently amended) A polymer composition, produced by the steps of: reacting one or more compounds with the terminal functional groups on a polymer, and said polymer consists essentially of:

polymerized 1,3-butadiene having a peak molecular weight between 500 and 20,000, 1,2-addition between 30% and 70%, and hydrogenation of at least 90% of the unsaturation;

a ratio of viscosity (in poise at room temperature) to peak molecular weight raised to the 3.4 power of at most 2.0 times 10^{-9}; and

about two [one] or more terminal functional groups per molecule.

2. (currently amended) The polymer composition of claim [1] 6, wherein the terminal functional groups of the polymer are selected from [a] the group consisting of hydroxyl, carboxyl, phenol, epoxy, and amine groups.

3. Cancelled

4. (currently amended) The polymer composition of claim [3] 6, wherein the polymerized 1,3-butadiene has a peak molecular weight between 1,000 and 10,000.

5. (currently amended) The polymer composition of claim 4, wherein the polymerized 1,3-butadiene is at least 95% hydrogenated.

6. (currently amended) The polymer composition of claim [5] 1, wherein the ratio of viscosity to peak molecular weight raised to the 3.4 power of the polymer is less than 1.0 times 10^{-9}.

7. (currently amended) The polymer composition of claim 6, wherein the terminal functional groups of the polymer consist of about two hydroxyl groups per molecule.

8. (currently amended) The polymer composition of claim 1, wherein the peak molecular weight of the polymer is between 1000 and 10000.

9. (currently amended) The polymer composition of claim [8] 6, wherein the 1,2-addition of the polymerized 1,3-butadiene is between 40% and 60%.

10. (original) The polymer composition of claim 1, wherein the polymerized 1,3-butadiene has about two hydroxyl groups per molecule.

11. (currently amended) The [polymeric] polymer composition of claim 10, wherein the polymerized 1,3-butadiene is reacted with compounds that form a coating.

12. (currently amended) The [polymeric] polymer composition of claim 10, wherein the polymerized 1,3-butadiene is reacted with compounds that form a block selected from the group consisting of polyesters, polyamides, and polycarbonates.

13. (previously presented) The polymer composition of claim 8 wherein the wherein the polymer has a peak molecular weight of about 10,000.

14. (previously presented) The polymer composition of claim 8 wherein the wherein the polymer has a peak molecular weight of about 5,000.

15. (previously presented) The polymer composition of claim 8 wherein the wherein the polymer has a peak molecular weight of about 3,000.

16. (previously presented) The polymer composition of claim 8 wherein the wherein the polymer has a peak molecular weight of about 2,000.

17. (previously presented) The polymer composition of claim 4 wherein the wherein the polymer has a peak molecular weight of about 10,000.

18. (previously presented) The polymer composition of claim 4 wherein the wherein the polymer has a peak molecular weight of about 5,000.

19. (previously presented) The polymer composition of claim 4 wherein the wherein the polymer has a peak molecular weight of about 3,000.

20. (previously presented) The polymer composition of claim 4 wherein the wherein the polymer has a peak molecular weight of about 2,000.

21. Cancelled.

22. Cancelled.

23. Cancelled.

24. (previously presented) The polymer composition of claim 1 wherein the polymerized 1,3-butadiene has 1.7 terminal functional groups per molecule.

25. (previously presented) The polymer composition of claim 1 wherein the polymerized 1,3-butadiene has 1.9 terminal functional groups per molecule.